APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/368,635	08/04/1999	MARTIN F. ARLITT	10981718-1	5764

7590	03/24/2004

HEWLETT PACKARD COMPANY
INTELLELLECTUAL PROPERTY ADMINITRATION
3404 E HARMONY ROAD
P O BOX 272400
FORT COLLINS, CO 80528-9599

EXAMINER
WOO, ISAAC M

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 January 2004*.

2a) ☒ This action is **FINAL**.　　　　2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-7* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-7* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to Applicant's argument, filed on January 23,

2004 have been fully considered but they are not persuasive.

2.   Claims 1-7 are pending.

Response to Amendment

3.   In response to Applicant's remarks filed on filed on January 23, 2004, the

following factual argument points are noted:

Holt and Smith do not disclose or suggest the content server does specify all

proxy server that subscribe to content file in content server and the content server

notifying subscribed proxy servers that cache content file is updated in the content

server to discard the cache content file to the proxy servers.

However, examiner does not agree. The claimed first limitation is subscribing

content file from the content server. Smith discloses, proxy servers (fig. 1, fig. 2) that

subscribe content file from server. Because the definition of cache is to store data once

received from servers. Therefore, proxy servers (caches) subscribe the server contents

and fig 1 discloses the list of the proxy servers (proxy server membership list, fig. 9A-D).

Thus, Smith discloses the content server does specify all proxy server that subscribe to

content file in content server. The claimed second limitation is to notify to cache content

update to the proxy server. Holt discloses, the content providing the server. The data may be stored in a database and a database manager notifies the content providing server when the data are changed. The content providing server may notify the intermediate server when the data are changed, intermediate server may receive a second request for the document. The intermediate server then carries out the instructions utilizing the data to create the document and transmits the document to a client. A database manager may notify the content providing server when a database containing the data is being altered, see (col. 4, lines 26-44). This teaches that notifying content server changing to the intermediate (proxy) servers. Therefore, Holt teaches notifying to cache content update to the proxy server. Thus, Holt and Smith combined disclose or suggest the content server does specify all proxy server that subscribe to content file in content server and the content server notifying subscribed proxy servers that cache content file is updated in the content server to discard the cache content file to the proxy servers.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Holt, III et al (U.S. Patent No. 6,324,565, hereinafter, "Holt") in view of Smith et al

(U.S. Patent No. 6,377,991, hereinafter, "Smith").

        With respect to claims 1 and 2, Holt discloses that in a data access network

system that includes content server (14, content providing server, fig.1) coupled to a

plurality of proxy servers (12, intermediate servers (col. 7, lines 36-60), fig. 1, col. 3,

lines 38-67 to col. 4, lines 1-45) via an interconnect network (fig.1, col. 3, lines 22-39), a

system of maintaining content consistency between the content server (14, content

providing server, fig.1) and proxy server (12, intermediate servers (col. 7, lines 36-60),

col. 3, lines 38-67 to col. 4, lines 1-45), consistency manager also in the content server

(14, content providing server, fig.1) in the content server for notifying all of so

subscribed proxy servers (12, intermediate servers (col. 7, lines 36-60), fig. 1, col. 3,

lines 38-67 to col. 4, lines 1-45) that cache the content file when the content file is

updated in the content server to discard the cached content file from those proxy

servers, see (col. 6, lines 11-40, function of consistency manager is notifying content

file's updating to proxy servers to keep consistency between content server and proxy

servers). Holt does not explicitly disclose the subscription manager in the content server

for specifying all of the proxy servers list that are subscribed to a content file stored in

the content server as claimed. Smith discloses the claimed proxy server (cache proxy

sever, definition of cache proxy server is subscribing cache from cache server) array

configured to a distributed cache to proxy server. The proxy server has a list that

contains all the proxy servers, see (fig. 5, col. 10, lines 15-23, col. 10, lines 56-65) and proxy server membership list, see (fig. 9A-D, col. 6, lines 49-65). This teaches the proxy server (definition of cache proxy server is subscribing cache from cache server) membership list specifies all of the proxy servers that are subscribed to a content file. Thus, this teaches subscription manager for specifying (list of proxy servers) all of the proxy servers.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to include the subscription manager in the content server for generating and specifying all of the proxy servers list that are subscribed to a content file stored in the content server taught in Smith in the system of Holt to provide proxy server list. Because the list of proxy servers provides quick data access by using the member of proxy servers to check and access member of proxy server to get cached information from member proxy server.

With respect to claim 3, Holt discloses, the proxy servers notifies the subscription manager that it has cached the content file via an HTTP GET request with a SUB (subscription) header when the proxy server decides that the content file should be subscribed, see (col. 3, lines 62-67 to col. 4, lines 1-23, the system of Holt web-based cache system, web based system uses web standard HTTP GET protocol to get cache information from web server).

With respect to claim 5, Holt discloses, the consistency manager notifies each of subscribed proxy servers via a DWS INV message when a content file has changed, see (col. 6, lines 11-40, col. 3, lines 38-67 to col. 4, lines 1-45).

With respect to claim 6, Holt discloses, the consistency manager also sends the updated content file to each of the proxy servers via an HTTP PUT request with a DWS SUB header, see (col. 6, lines 11-40).

With respect to claim 7, Holt discloses, the consistency manager notifies all of the proxy servers specified by the subscription manager to discard the cached contents file from the proxy servers when the content file is updated or deleted in the content server within a predetermined time interval, see (col. 1, lines 46-67 to col. 2, lines 1-12).

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holt, III et al (U.S. Patent No. 6,324,565, hereinafter, "Holt") in view of Smith et al (U.S. Patent No. 6,377,991, hereinafter, "Smith") further in view of Aggarwal et al (U.S. Patent No. 6,012,126, hereinafter, "Aggarwal").

With respect to claim 4, Neither Holt nor Smith explicitly disclose, the content file is not a popular file, then that proxy server does not notify the subscription manager that it has cached the content file, see (col. 1, lines 46-67 to col. 2, lines 1-12, col. 3, lines 38-67 to col. 4, lines 1-45). However, Aggarwal discloses the admission control logic

uses popularity criterion for the object accessed. The auxiliary stack serves as dynamic

popularity list and an object may admitted to the cache if and only if it appears on the

popularity list, see (col. 3, lines 63-67 to col. 4, lines 1-13). And Aggarwal discloses the

object of the admission control logic is to limit entry to the cache to objects which meet a

popularity criterion, see (fig.2, fig.4, col. 6, lines 19-42). This teaches the file that is not

popular is not cached (subscribed).

Therefore, it would have been obvious to a person having ordinary skill in the art

at the time of the invention was made to include the content file that is not a popular file,

then that proxy server does not notify the subscription manager taught in Aggarwal in

the system of Holt and Smith to subscribe only popular files from content server.

Because caching only popular files provides saving accessing time for contents with

reducing fetch time and saving storage medium in computer environment.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Isaac M Woo whose telephone number is (703) 305-

0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

IMW
March 16, 2004
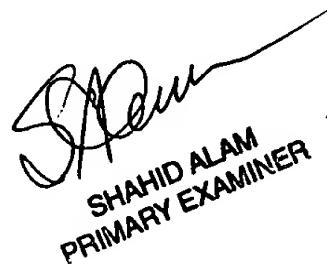
SHAHID ALAM
PRIMARY EXAMINER